

CLAIMS

- 1 1. A method comprising
2 processing information about network faults that contribute
3 to a failure of a network element in which the faults are occurring,
4 and
5 sending traps to a network management station with respect
6 to fewer than all of the faults that are occurring, based on the
7 results of the information processing.
- 1 2. The method of claim 1 in which the information is
2 processed using a directed acyclic graph.
- 1 3. The method of claim 2 in which nodes of the graph
2 represent entities of the network element.
- 1 4. The method of claim 1 in which the result of the processing
2 comprises information about the causal relationships among at
3 least some of the faults.
- 1 5. The method of claim 1 in which traps are sent with respect
2 to faults that have a causal relationship to other faults and traps are
3 not sent with respect to at least some of the other faults.
- 1 6. The method of claim 1 also including

2 requesting fault information from an entity that is part of
3 the network element and which has not triggered a fault notice to
4 determine if there is a fault associated with the network element.

1 7. A method comprising

2 at a network management station, receiving traps sent from
3 network elements, the traps including information about at least
4 some faults occurring in entities of the network elements, the traps
5 not including information about at least some faults occurring in
6 the entities.

1 8. The method of claim 7 also including

2 reporting the traps to an operator of the network
3 management station.

1 9. The method of claim 7 in which the traps the information
2 included in the traps represents faults that have a causal
3 relationship to other faults.

1 10. Apparatus comprising

2 a network element having

3 network entities that are subject to faults, the faults
4 of at least some of the network entities having causal
5 relationships to the faults of at least some of the network
6 entities, and

7 a medium bearing information capable of
8 configuring a machine in the network element to send traps
9 based on the causal relationships to a network management
10 station.

1 11. A medium bearing information capable of configuring a
2 machine to determine causal relationships among faults occurring
3 in entities of a network element.

1 12. The medium of claim 11 in which the information
2 comprises a directed acyclic graph of nodes.

1